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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,645	06/07/2001	Mingqiu Sun	884.439US1	9088

			EXAMINER
21186	7590	08/13/2004	TANG, KENNETH

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ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/876,645	SUN ET AL.
	Examiner	Art Unit	
	Kenneth Tang	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 December 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-36</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>07 June 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-36 are presented for examination.

Specification

2.   Applicant is required to update the status of all related applications in the introductory

paragraph of the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention:

a.   In claim 1, "providing distributed queuing of workflows" (line 2) is indefinite

because it is not made explicitly clear in the claim language who or what performs this.

b.   In claim 1, "assigning the workflow" (line 6) is indefinite because it is not made

explicitly clear in the claim language who or what performs this.

c.   Claims 9, 17, 22, 27, and 32 are rejected as being indefinite for the same reasons

as stated above in a) and c).

d.   In claim 2, "load manager" (lines 1-2) is indefinite because it is not made

explicitly clear whether this is located in the client or outside the client, for example.

e.   Claims 10, 18, 23, 28 and 33 are rejected as being indefinite for the same reasons

as stated above in d).

4.   Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for

omitting essential structural cooperative relationships of elements, such omission amounting to a

gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural

cooperative relationships are: "one or more execution-requesting clients" and "plurality of

workflow engines". It is not made explicitly clear in the claim language whether the first client

is linked only to the first workflow engine, and the second client linked only to the second

workflow engine, and so on. In other words, it is not clear whether or not there is a workflow

engine for every client. It is unclear whether or not the first client can communicate with the

second workflow engine. It is not clear whether or not there is the same number of workflow

engines as clients.

5.   Claims 9, 17, 22, 27, and 32 are rejected as being incomplete for omitting essential

structural cooperative relationships of elements for the same reasons as stated directly above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Campbell et al. (hereinafter Campbell) (US 2001/0024497 A1) in view of Nakamura et al.

(hereinafter Nakamura) (US 2001/0027477 A1).

7.   As to claim 1, Campbell teaches a method to be performed by a data processing system

comprising:

        providing distributed queuing of workflows (workflow manager), whose execution is

requested by one or more execution-requesting clients, among a plurality of workflow engines

(page 5, [0084], page 6, [0085]);

Campbell fails to explicitly teach if a workflow is completed by a first workflow engine for an

execution-requesting client, sending an explicit and delayed acknowledgement to the execution-

requesting client, else assigning the workflow to a second workflow engine.

However, Nakamura teaches determining whether a first workflow is completed by a first

client/terminal, and if not completed, then it notifying so that the second terminal/client can be

assigned the workflow *(page 1, [0011]-[0012])*. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to include if a workflow is completed by a first

workflow engine for an execution-requesting client, sending an explicit and delayed

acknowledgement to the execution-requesting client, else assigning the workflow to a second

workflow engine to the existing system and method of Campbell because it provides a means for

controlling flows to a workflow controlling system in which there are workflows among a

plurality of participants *(page 1, [0007])*.

8.   As to claim 2, Campbell teaches wherein providing is performed by a load manager

(workflow manager) *(page 5, [0084], page 6, [0085])*.

9.   As to claim 3, Campbell teaches wherein the load manager comprises a commercially

available middleware product *(page 15, [0208])*.

10.   As to claim 4, Nakamura teaches wherein the explicit and delayed acknowledgement is

performed by a certified messaging capability *(page 1, [0004])*.

11.   As to claim 5, Nakamura teaches certified messaging capability and Campbell teaches

that all communication types are workflow enabled and pass through the load manager

(workflow manager) *(page 5, [0084])*.

12.   As to claim 6, Campbell teaches wherein the load manager comprises a commercially

available middleware product *(page 15, [0208])*.

13.   As to claim 7, Campbell teaches wherein the certified messaging capability is performed

by a certified message receiver forming part of the workflow *(page 1, [0004], page 5, [0084])*.

14.   As to claim 8, Nakamura teaches the certified messaging capability sending an explicit

and delayed acknowledgement to the execution-requesting client if the workflow is completed by

the second workflow engine *(page 1, [0011]-[0012])*.

15.   As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 1.

16.   As to claim 10, it is rejected for the same reasons as stated in the rejection of claim 2.

17.   As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 3.

18.   As to claim 12, it is rejected for the same reasons as stated in the rejection of claim 4.

19.   As to claim 13, it is rejected for the same reasons as stated in the rejection of claim 5.

20.   As to claim 14, it is rejected for the same reasons as stated in the rejection of claim 6.

21.   As to claim 15, it is rejected for the same reasons as stated in the rejection of claim 7.

22.   As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 8.

23.   As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Campbell teaches the computer operating in a fault-tolerant manner and requesting a workflow execution on behalf of a client *(page 2, [0043] and [0044], page 4, [0061] and [0063])*.

24.   As to claim 18, it is rejected for the same reasons as stated in the rejection of claim 2.

25.   As to claim 19, it is rejected for the same reasons as stated in the rejection of claim 4.

26.   As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 7.

27.   As to claim 21, it is rejected for the same reasons as stated in the rejection of claim 8.

28.   As to claim 22, it is rejected for the same reasons as stated in the rejection of claim 17.

29.   As to claim 23, it is rejected for the same reasons as stated in the rejection of claims 1 and

2.

30.   As to claim 24, it is rejected for the same reasons as stated in the rejection of claim 4.

31.   As to claim 25, it is rejected for the same reasons as stated in the rejection of claim 7.

32.   As to claim 26, it is rejected for the same reasons as stated in the rejection of claim 8.

33.   As to claim 27, it is rejected for the same reasons as stated in the rejection of claim 17.

34.   As to claim 28, it is rejected for the same reasons as stated in the rejection of claim 2.

35.   As to claim 29, it is rejected for the same reasons as stated in the rejection of claim 4.

36.   As to claim 30, it is rejected for the same reasons as stated in the rejection of claim 7.

37.   As to claim 31, it is rejected for the same reasons as stated in the rejection of claim 8.

38.   As to claim 32, it is rejected for the same reasons as stated in the rejection of claim 17.

39.   As to claim 33, it is rejected for the same reasons as stated in the rejection of claim 23.

40.   As to claim 34, it is rejected for the same reasons as stated in the rejection of claim 4.

41.   As to claim 35, it is rejected for the same reasons as stated in the rejection of claim 7.

42.   As to claim 36, it is rejected for the same reasons as stated in the rejection of claim 8.

Conclusion

43.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

- **US 2002/0065701 A1 (Kim et al.)** teaches a workflow management system

   involving a workflow database, process engine, and load balancing of a plurality

   of clients.

44.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The

examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
8/6/04

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